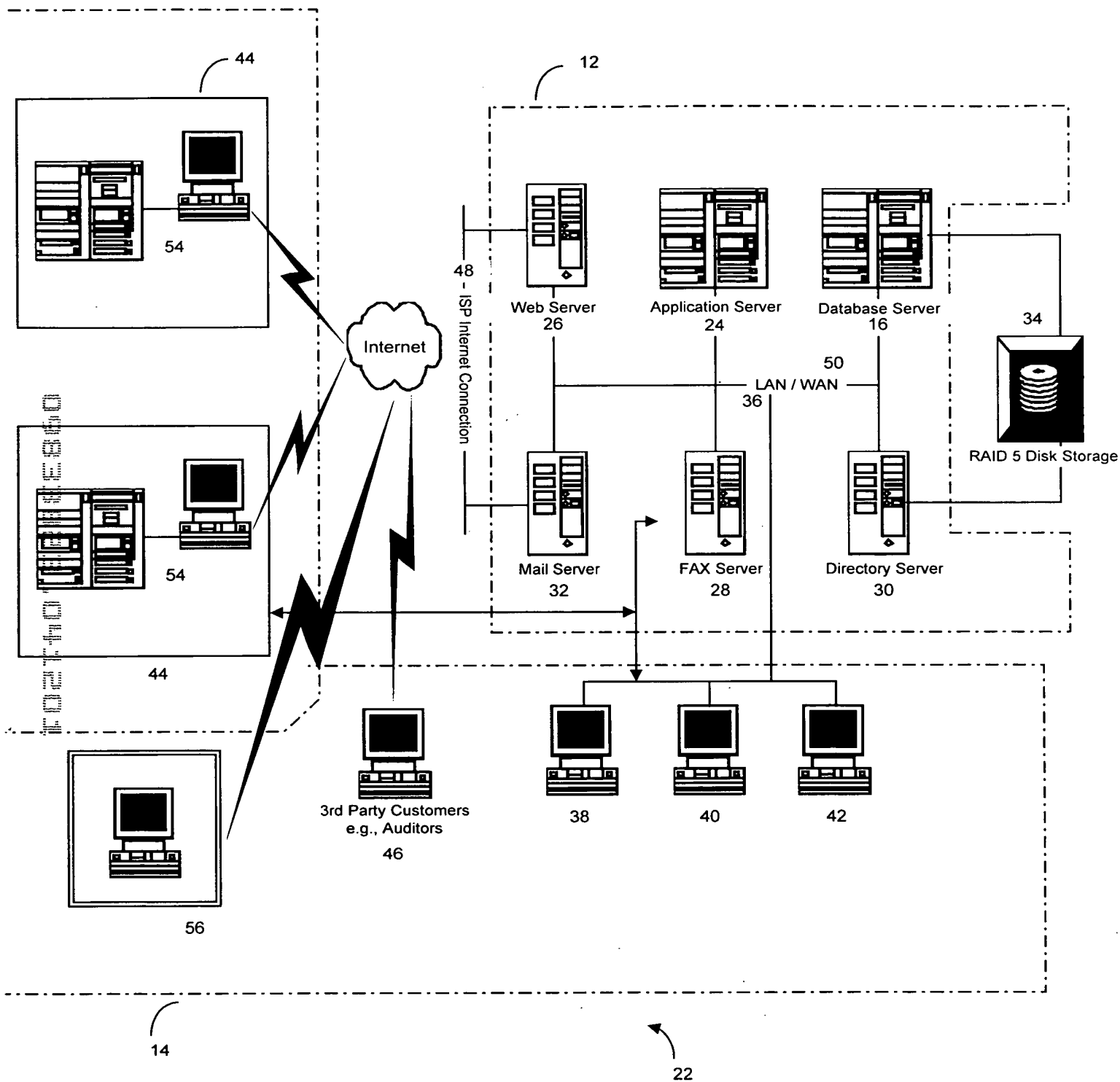
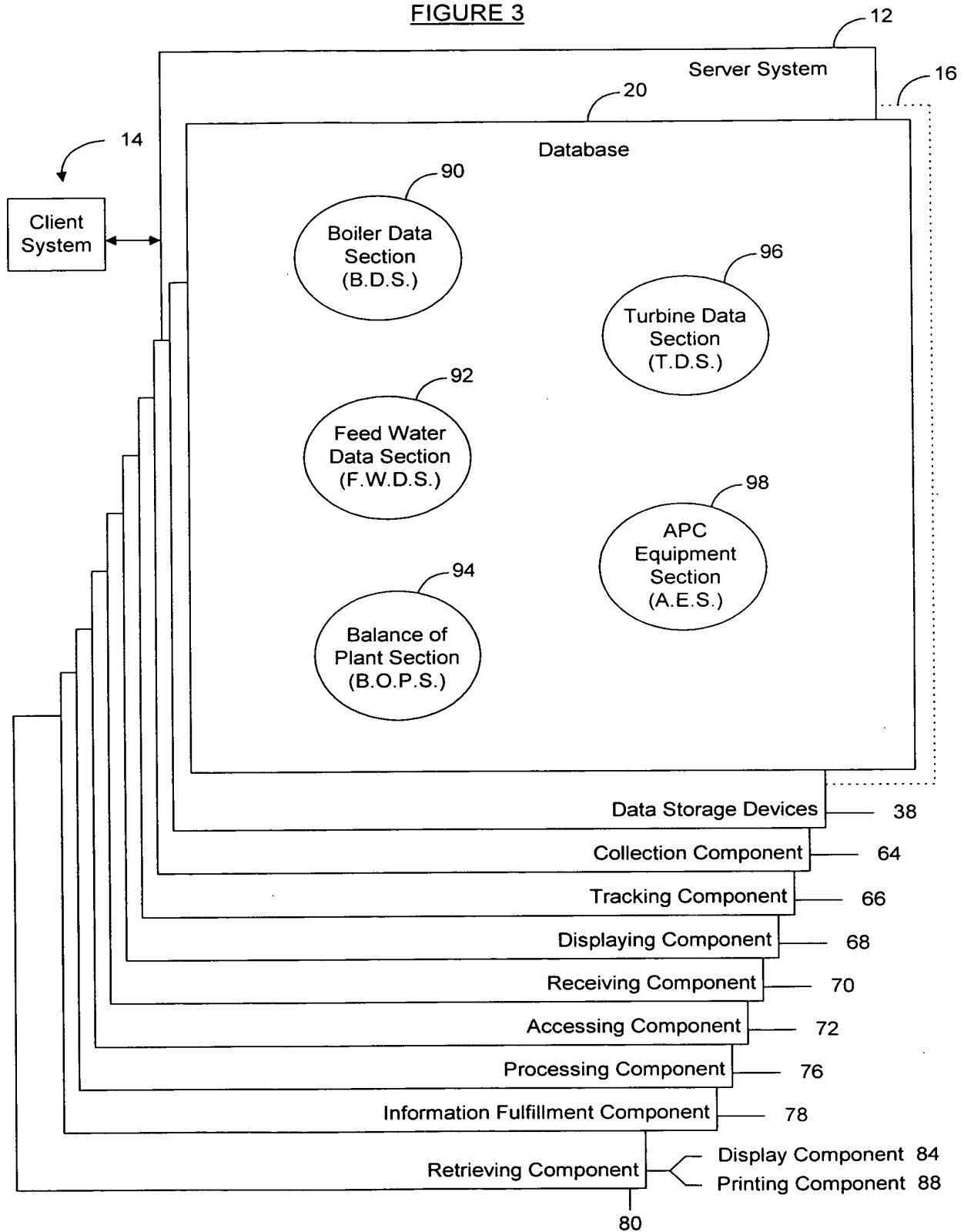


FIG. 1



**FIGURE 2**

FIGURE 3







## Unit 4

Percentage of Available Hours Dispatched

[illegible]

Unit 8

Percentage of Available Hours Dispatched

[illegible]

**Delayed Loss**

[illegible]

**FIGURE 6**

[illegible][illegible]

F1602C-7

Unit 8

Percentage of Available Hours Dispatched

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
January	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
February	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
March	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
April	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
May	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
June	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
July	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
August	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
September	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
October	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
November	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
December	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%

Dispatched Load

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
April	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
July	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
August	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
September	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

FIGURE - 8



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Exits Information:

ACTUAL ANALYSIS

Mediums & Ash Free  
Carbon 74.80%  
Hydrogen 6.50%  
Nitrogen 1.00%  
Chlorine 0.05%  
Sulfur 1.70%  
Oxygen 13.20%

As Received Analysis  
Moisture 8.00%  
Ash 14.00%  
Fixed Carbon 54.00%  
Volatile Matter 24.00%  
Sulfur 1.70%  
Nitrogen 1.00%  
Chlorine 0.05%  
Oxygen 13.20%

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Operational Information:

Cycle ACTUAL CYCLE VALUES

Unit 1 2,468,331  
Unit 2 2,468,331  
Unit 3 2,468,331  
Unit 4 2,468,331  
Unit 5 2,468,331  
Unit 6 2,468,331  
Unit 7 2,468,331  
Unit 8 2,468,331

Unit 1 2,468,331  
Unit 2 2,468,331  
Unit 3 2,468,331  
Unit 4 2,468,331  
Unit 5 2,468,331  
Unit 6 2,468,331  
Unit 7 2,468,331  
Unit 8 2,468,331

Unit 1 2,468,331  
Unit 2 2,468,331  
Unit 3 2,468,331  
Unit 4 2,468,331  
Unit 5 2,468,331  
Unit 6 2,468,331  
Unit 7 2,468,331  
Unit 8 2,468,331

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Unit 1 275  
Unit 2 0  
Unit 3 0  
Unit 4 0  
Unit 5 0  
Unit 6 0  
Unit 7 0  
Unit 8 0

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FIGURE-9

Facility Equipment Information:

Flyash Control Equipment

Unit 1	MANHOLE	▼
Unit 2	CP	▼
Unit 3	MANHOLE PLUS SORTING BAGS	▼
Unit 4	CP	▼
Unit 5	CP	▼
Unit 6	CP	▼
Unit 7	CP	▼
Unit 8	CP	▼

SO2 Control Equipment

Unit 1	SCRAMBLER	▼	LOW	▼
Unit 2	NO SO2 EQUIPMENT	▼	LOW	▼
Unit 3	LOW REACTION	▼	LOW	▼
Unit 4	NO SO2 EQUIPMENT	▼	LOW	▼
Unit 5	NO SO2 EQUIPMENT	▼	LOW	▼
Unit 6	NO SO2 EQUIPMENT	▼	LOW	▼
Unit 7	NO SO2 EQUIPMENT	▼	LOW	▼
Unit 8	NO SO2 EQUIPMENT	▼	LOW	▼

Mercury Control Equipment

Unit 1	ACTIVATED CARBON	▼
Unit 2	NO Hg CONTROL	▼
Unit 3	NO Hg CONTROL	▼
Unit 4	NO Hg CONTROL	▼
Unit 5	NO Hg CONTROL	▼
Unit 6	NO Hg CONTROL	▼
Unit 7	NO Hg CONTROL	▼
Unit 8	NO Hg CONTROL	▼

NOx Control Equipment

Unit 1	SCR	▼
Unit 2	LOW NOx BURNERS	▼
Unit 3	SCR	▼
Unit 4	LOW NOx BURNERS	▼
Unit 5	LOW NOx BURNERS	▼
Unit 6	LOW NOx BURNERS	▼
Unit 7	LOW NOx BURNERS	▼
Unit 8	LOW NOx BURNERS	▼

Pricing Information

Coal Pricing	\$15.00
FOB Mine	\$15.00
Transportation	\$30.00

FIGURE-10

# STEAM CONDITIONS:

	Without QF Steam	With Equiv. QF Steam	lb/hr
Superheater Flow:	2,568,331	2,568,331	
Reheater Flow:	2,254,665	2,254,665	

	Superheat	Reheat
<b>Inlet Conditions:</b>		
Steam Pressure - psia	2,470	639
Steam Quality	0	
Water/Steam Temp. - F	490	660
Enthalpy	476	1,325
<b>Outlet Conditions:</b>		
Steam Pressure - psia	2,415	589
Steam Temp. - Deg. F	1,000	1,000
Enthalpy	1,460	1,518
Heat Input	984	192

QF HEAT LOSS	No Loss	
Pounds Per Hour	0	
Pressure - psia	464.696	
Temperature	460	
Degrees of SH	50	
QF Steam Enthalpy	1243.18	
FW Enthalpy	476.14	
Heat Loss - Btu/s	0	Btu/s
Increase in Steam - #/hr	0	#/hr
	0.00%	
Equiv. Output - MW	373	MW

No Loss	Included
Pounds Per Year	0.0000E+00

Reheat-To Superheat Ratio 0.877871661

MCR	Partial Load
2-55	0.0000
>55	0.9589

## PREDICTED PERFORMANCE: AVERAGE LOAD

		100%	(MCR)	95.00%	
FUEL	Pulverized Coal				
TURBINE STEAM FLOW CORRECTION FACTOR		0.9589		0.9589	
EVAPORATION	Superheater:	2,568,331		2,439,914	
	Reheater:	2,254,665		2,141,932	
TEMP. AT SUPERHEATER/REHEATER OUTLET	F	1,000	/ 1,000	1,000	1000
PRES. AT SUPERHEATER/REHEATER OUTLET	psig	2,400	/ 574	2,400	574
FEEDWATER TEMP.	F	490		490	
GAS TEMP. LEAVING AIR HEATER	F	275		268	
	(uncorr.)				
AMBIENT AIR TEMP.	F	80		80	
AIR TEMP. LEAVING THE AIR HEATER (APPROX)	F	552		20	
EXCESS AIR	pct	20			LHV
HEAT LOSSES					
	DRY GAS	pct	4.36%	4.20%	4.20%
	H2O & H2 IN FUEL	pct	8.04%	8.02%	
	H2O IN AIR	pct	0.10%	0.10%	
	CARBON	pct	0.25%	0.24%	0.20%
	RADIATION	pct	0.35%	0.33%	0.33%
	MFG. MARGIN	pct	1.50%	1.43%	1.43%
	HEAT CREDITS	pct	-0.41%	-0.39%	
	BLOWDOWN	pct	0.00%	0.00%	
	TOTAL	pct	14.19%	13.82%	6.15%
EFFICIENCY	pct	85.81%		86.08%	93.85%
GROSS HEAT FIRED	MMBtu/hr	3,554.99		3,366.55	
FUEL FIRED PER HOUR	lb/hr	418,234	tonnes/hr	396,065	tonnes/hr
	TPH	209.12	190	198.03	180
AVERAGE LOAD CONDITION DURING AVAILABLE HOURS	%	100.00%		95.00%	
AVAILABLE HOURS		8,256		8,256	
FUEL FIRED PER YEAR	tyr	1,726,472		1,634,955	
TOTAL COMBUSTION PRODUCTS	lb/hr	3,601,358		3,410,456	
TOTAL COMBUSTION AIR	ACFM	1,109,079		3,014,392	
	lb/hr	3,183,124			
	ACFM	997,176			
TOTAL ASH (100% UP)	tyr	11.50		10.89	
TOTAL LIMESTONE (100% UP)	tyr	3.10		2.93	
TOTAL FLYASH/LIMESTONE REMOVAL SYSTEM LOADING	tyr	25,586		24,230	
	tyr	14.60		13.83	
	tyr	114,152		114,152	
FLUE GAS TO STACK	lb/hr	3,601,358		3,410,456	
LJUNGSTROM AIR HEATER LEAKAGE	lb/hr	0		0	
SOOTBLOWING STEAM	lb/hr	0		0	
NET EVAPORATION	lb/hr	2,568,331		2,439,914	
POUNDS STM/KW		6.89			
NO. OF UNITS		1			
<b>HEAT RATE CALCULATION (APPROX.):</b>					
Gross Heat Rate (Total Plant):	BTU/KW HR				
Net Heat Rate (Turbine Only):	BTU/KW HR				
Plant Gross Heat Rate:	BTU/KW HR	9,543	HHV	10,068	9,513
		8,824	LHV	9,310	8,796
Plant Net Heat Rate:	BTU/KW HR	10,098	HHV	10,654	10,056
		9,338	LHV	9,852	9,308
					9,820

FIGURE - 11

2001	Unit.1	Unit.2	Unit.3	Unit.4	Unit.5	Unit.6	Unit.7	Unit.8	Total
Direct Labor:									
Agreed for total labor requirements (year 1, year 0)	0								
	\$4,459,450								\$4,459,450
Operator's Fee & Service:									
Bonus Payments:	\$227,239								\$227,239
Home Office Technical Support:									
Percent of Annual Labor:	\$0								\$0
Warranty Support:									
Percent of Annual Labor:	\$0								\$0
Planned Maintenance:									
\$4,100,204									\$4,100,204
Boiler:									
Turbine: (Major Turbine Outage assumed in 1995)									
APC Equipment:									
Feedwater System:									
BCP:									
Unplanned Maintenance:									
10% of Planned Maintenance:	\$410,020								\$410,020
Planned Spare Parts:									
Boiler:	\$1,731,861								\$1,731,861
Turbine:	\$789,200								\$789,200
APC Equipment:	\$149,151								\$149,151
Feedwater System:	\$62,861								\$62,861
BCP:	\$173,651								\$173,651
\$2,896,264									\$2,896,264
Unplanned Spare Parts:									
10% of Planned Spare:	\$289,626								\$289,626
Employee Travel & Relocation:									
\$88,200									\$88,200
Other Employee Expenses, Fees and Services:									
\$259,422									\$259,422
Office/Administration expenses:									
\$251,573									\$251,573
Contract Services:									
Percent of Annual Labor:									
\$1,129,800									\$1,129,800
Air Dispatch:									
\$44,716									\$44,716
Start-Up Fuel:									
Consumables:									
\$379,877									\$379,877
Chemicals:									
\$459,888									\$459,888
Coal:									
\$48,510,008									\$48,510,008
Limestone:									
\$399,468									\$399,468
Purchased Power:									
\$212,706									\$212,706
Equipment Rental:									
\$1,116,353									\$1,116,353
Total Operating Budget									
Costs 4									
Taxes	\$0								\$0
Insurance	\$0								\$0
Not Included: Building Data Base	\$0								\$0
Total Operations Costs including Taxes and Insurance:									
\$2,851,796,323									\$2,851,796,323
Costs 1W generated Annually									
Cost of Generation:									
\$0.0728									\$0.0728

O&M Cost Summary For:				
2001				
	Fixed Costs	Variable Costs	Major Maintenance	Fuel
Direct Labor:				
Operator's Fee & Service:	\$4,429,453			
Bonus Payments:	\$207,529			
Home Office Technical Support:	40			
Warranty Support:	40			
Planned Maintenance:			\$4,102,254	
Power Marketing & Resource Management	40			
Unplanned Maintenance:			\$410,223	
Planned Spare Parts:				
Boiler:		\$1,751,861		
Turbine:		\$719,220		
APC Equipment:		\$145,101		
Feedwater System:		\$40,000		
SCP:		\$173,851		
		\$2,669,234		
Unplanned Spare Parts:		\$298,529		
Employee Travel & Relocation:	\$89,200			
Other Employee Expenses, Fee and Service	\$296,425			
Office/Administration Expenses:	\$291,873			
Contract Services:	Included			
Ash Disposal:		\$1,125,860		
Start-up Fuel:		\$94,716		
Consumables:		\$279,377		
Chemicals:		\$428,698		
Coal:				\$48,810,209
Limestone:		\$352,429		
Purchased Power:		\$512,700		
Equipment Rental:		\$1,419,850		
Total Operating Budget	\$4,825,008	\$7,216,116	\$4,915,267	\$48,810,209
	\$1,098	\$0.39%	\$4.7%	\$0.84%
Fixed Costs	\$4,825,008			
Variable Costs	\$7,216,116			
Total	\$12,041,124			
			\$0.0015	\$0.0028

FIGURE - 13

File Name: CoalPerf031701  
Project Name: Sample Project  
Location: USA

Operator: To Be Determined

Facility Generation Information (per unit information):

Facility Net Output:  
House Load (-5.5%):

Use typical values: Actual=2

House Load in MW

Live Losses:  
Unit Gross Output:

Total Installed Capacity in MW

Equivalent Gross

Based on Actual Gross Output = 1

Based on Equip. Gross Output = 2

Equip. Increased MW Output:

(Approximate)

Gross Output Used in O&M Calculations:

Unit Net Heat Rate (HHV)

(Full Load Calculated Value)

Operational Information For

Base O&M Labor Costs On

Gross Maximum Capacity

Net Maximum Capacity

Gross Generation (Actual)

Period Hours

Available Hours

Excessed Outage Hours

Forced Outage Hours

Maintenance Outage Hours

Average Load Condition (Gross) MW

Average Load Condition (Net) MW

OE Steam Exp

OE Steam Flow (% of MCR)

Pounds Per Hour (Average)

Pounds Per Hour (Average)

Pressure (psig)

Degrees of SH (F)

(Type 0 for saturated steam or input actual degrees of SH)

Coal Feed Information

Feed Rate (lb/hr)

Coal Feed Information

Feed Rate (lb/hr)

General Information

General Information

[illegible]

<b>Ash - Tonne Bags</b>	21.35	22.68	26.22
		108.23%	115.61%

250

Exchange Rate (X/US\$)	US\$	
Cost per Ton of Fuel (including trans.)	\$15.00	\$/ton - FOB Mine
	\$15.00	per ton
	\$30.00	per tonne
	\$33.07	
	17.00	MM Btu's/ton
	\$0.88	\$/MM Btu's - FOB mine
	\$1.76	\$/MM Btu's - Delivered
Disposal Cost per Ton of Ash/Scrubber Sludge	\$10.00	
	2	
Disposal Cost per Ton of Ash/Scrubber Sludge	\$0.00	
	\$0.00	
	\$15.00	
	2	
	\$0.80	
	\$0.50	

Operator Related Information	
Operator Fee	\$0
Operator Bonus	\$0
Home Office Tech Support	\$0
Warranty Support	\$0
Number of shifts	4
Union=1 ; non-union=0	0
Union=1 ; non-union=0	10%
Overtime	40%

Waste Berths								
Facility Equipment Information:								
Type Of Boiler Equipment ( 1 or 2 )	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
1 2		1	1	1	1	1	1	1
PULVERIZED COAL FLUIDIZED BED								
Unit Design / Commercial Operation Date	PC 1	PC 1	PC 1	PC 1	PC 1	PC 1	PC 1	PC 1
Number of Boilers								
Flyash Control System	2	1	3	1	1	1	1	1
1 ESP 2 BAGHOUSE 3 BAGHOUSE PLUS GORETEX BAGS								
S02 Control System:	3	1	2	1	1	1	1	1
1 NO SO2 EQUIPMENT 2 DRY INJECTION 3 SCRUBBER								
Mercury Control System	2	1	1	1	1	1	1	1
1 NO HG CONTROL 2 ACTIVATED CARBON								
N0x Control System								
NOx Control System								





FOOTING E28E350

Moisture  
Ash

28.55%  
5.65%  
100.00%

✓ 258

Furnace Volume Design Parameters

Volume - Cu. Ft.  
Surface - Sq. Ft. (EPRS - Up Nose):  
NAPAL

20,000  
200,000  
1,850,000  
0.25%

Carbon Loss

FIGURE-17

# FIGURE - 18

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File Name: CoalPerf031601  
Project Name: Sample Project

Location: USA

Operator: To Be Determined

Escalation 4.00%  
Escalation Factor 1.070

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Total Facility
Number of Equipment Sets Per Unit	1	0	0	0	0	0	0	0	1
Unit Gross Output	373	0	0	0	0	0	0	0	373
19-Mar-01									
<b>Development Costs</b>									
Internal Costs	\$11,833	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,832.68
Third Party Costs	\$12,326	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12,325.70
Project Control	\$1,576	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,577.69
Development Contingency	\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Land Options	\$986	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$988.06
Pre NTP EPC Cost	\$1,872	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,872.11
<b>Total Development Costs</b>	<b>\$28,694</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$28,694.24</b>
Development Fee	\$9,057	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,057.13
Mine Acquisition Costs	\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Site Purchase	\$12,076	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12,076.17
<b>Development Fee/Mine Acquisition/Site</b>	<b>\$21,133</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$21,133.30</b>
<b>Plant</b>									
Boilers									
Headers	\$4,307	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,307.00
Heating Surface	\$21,036	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,036.00
Waterwall	\$12,904	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,904.00
Steel	\$16,533	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,533.00
Firing Equipment	\$10,275	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,275.00
Misc. Equipment	\$20,846	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,846.00
	\$88,501	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$88,500.85
Turbine Generators	\$38,324	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,324.29
BAGHOUSE	\$7,459	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,459.07
SCHUMBER	\$37,253	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,252.80
ACTIVATED CARBON	\$419.07	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$419.07
SCR	\$37,253	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,252.80
Circulating Water System	\$1,275.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,275.65
Electrical System & Equipment	\$23,330.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23,330.45
Fuel Storage & Handling	\$17,662.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$17,662.70
Infrastructure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Water Treatment	\$3,132.42	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,132.42
Other	\$39,755.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39,755.15
Misc. Insurance	\$515.62	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$515.62
<b>Fixtures</b>									
Boilers - not plant related	\$446.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$446.53
Chimneys	\$3,500.06	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,500.06
Cooling Towers	\$20,257.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$20,257.85
Coal Bunkers	\$1,002.37	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,002.37
<b>Land &amp; Buildings</b>									
Buildings	\$34,773.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34,773.70
<b>Other</b>									
EPC Target	\$49,085.88	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$49,085.88
<b>Total EPC Costs</b>	<b>\$402,048.85</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$402,048.85</b>
<b>Transmission Fees During Construction</b>	<b>\$4,021.87</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$4,021.87</b>
<b>Waste Water Pipeline</b>	<b>\$11,189.05</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$11,189.05</b>
<b>Management Services During Construction</b>									
General & Administrative	\$15,382.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15,382.48
Professional Services	\$2,760.96	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,760.96
Engineering Consultants	\$1,972.11	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,972.11
Utilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Owner's Mobilization G&A	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Owner's Costs	\$2,218.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,218.63
Management Services Fee	\$1,725.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,725.80
<b>Total Owner's Costs</b>	<b>\$24,059.78</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$24,059.78</b>
<b>O&amp;M Mobilization</b>									
Labor	\$8,806.56	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,806.56
Fee	\$1,015.84	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,015.84
G&A	\$374.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$374.70
Plant Consumables	\$1,356.81	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,356.81
Equipment	\$5,423.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,423.31
Owner's G&A	\$9,663.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,663.35
<b>Infrastructure Costs</b>									
Roads	\$8,263.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,263.15
Community Infrastructure	\$1,054.09	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,054.09
Mine Industrial Area	\$5,180.74	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,180.74
Construction Camp	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Water Management	\$1,176.37	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,176.37
<b>Total Infrastructure Costs</b>	<b>\$15,674.35</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$15,674.35</b>
<b>Owner's Contingency</b>									
Power Plant EPC Costs	\$40,204.87	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40,204.87
Transmission Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Electrical Interconnection	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Infrastructure Costs	\$1,587.44	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,587.44
<b>Total Owner's Contingency</b>	<b>\$41,772.10</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$41,772.10</b>
<b>Financing Fees/Costs</b>									
Financial Advisor	\$8,409.37	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,409.37
Upfront Fees	\$8,381.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,381.48
	\$14,790.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14,790.85

Unit Gross Output	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Total Facility
	373	0	0	0	0	0	0	0	373
Total Cost	\$587,823.73	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$587,823.73
\$/kW Installed	\$1,578.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$157.00

File Name: CoalPerf031601  
Project Name: Sample Project

Location: USA

Operator: To Be Determined

Date	Mar-01	Mar-02	Mar-03	Mar-04	Mar-05	Mar-06	Mar-07	Mar-08	Mar-09	Mar-10	10 Year Average
Hours of Operation (hr) (of operational year)											
Operational Year	\$258	\$1,280	\$258	\$258	\$258	\$258	\$258	\$1,280	\$258	\$258	\$464
Waterwall	\$439	\$2,193	\$439	\$439	\$439	\$439	\$439	\$2,193	\$439	\$439	\$790
Heating Surface	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grates	\$0	\$1,032	\$0	\$258	\$0	\$516	\$0	\$1,032	\$0	\$258	\$310
Pulverizers	\$0	\$1,032	\$0	\$258	\$0	\$516	\$0	\$1,032	\$0	\$258	\$310
Air Pre-Heater	\$0	\$88	\$0	\$177	\$0	\$88	\$0	\$177	\$0	\$88	\$82
Fuel Handling	\$0	\$215	\$0	\$0	\$0	\$0	\$0	\$215	\$0	\$0	\$43
Headers	\$0	\$0	\$0	\$0	\$0	\$17	\$0	\$0	\$0	\$0	\$2
Steel	\$0	\$0	\$0	\$0	\$0	\$132	\$0	\$0	\$0	\$0	\$13
Belt/Crushers	\$0	\$0	\$0	\$0	\$0	\$177	\$0	\$0	\$0	\$0	\$18
Casting/Refractory/Ductwork	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$550	\$0	\$0	\$55
Chemical Cleaning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$550	\$0	\$0	\$2,068
Sub-Total	\$887	\$5,861	\$887	\$1,388	\$887	\$2,143	\$887	\$6,489	\$887	\$1,301	
Turbine (Inspection)	\$0	\$1,916	\$0	\$0	\$0	\$0	\$0	\$1,916	\$0	\$0	\$363
Turbine Valves	\$0	\$575	\$0	\$0	\$0	\$0	\$0	\$575	\$0	\$0	\$144
Generator (Inspection)	\$0	\$768	\$0	\$0	\$0	\$0	\$0	\$768	\$0	\$0	\$153
Sub-Total	\$0	\$3,267	\$0	\$0	\$0	\$0	\$0	\$3,267	\$0	\$0	\$680
Anion Resin	\$344	\$0	\$0	\$376	\$0	\$0	\$407	\$0	\$0	\$188	\$132
Cation Resin	\$0	\$141	\$0	\$0	\$125	\$0	\$0	\$0	\$0	\$0	\$27
MB Resin	\$141	\$0	\$0	\$110	\$0	\$125	\$0	\$0	\$0	\$0	\$52
Carbon Filters	\$78	\$0	\$78	\$0	\$78	\$0	\$78	\$0	\$78	\$0	\$39
Gravity Filters	\$0	\$0	\$13	\$0	\$0	\$0	\$0	\$0	\$38	\$0	\$5
Sub-Total	\$564	\$141	\$91	\$486	\$78	\$125	\$811	\$0	\$116	\$128	\$284
BAGHOUSE	\$0	\$0	\$184	\$0	\$184	\$0	\$0	\$0	\$184	\$0	\$49
SCRUBBER	\$0	\$0	\$310	\$0	\$310	\$0	\$0	\$0	\$310	\$0	\$93
Sub-Total	\$0	\$0	\$474	\$0	\$474	\$0	\$0	\$0	\$474	\$0	\$142
Electrical	\$0	\$233	\$0	\$233	\$0	\$233	\$0	\$233	\$0	\$233	\$117
I&C	\$0	\$117	\$0	\$117	\$0	\$117	\$0	\$117	\$0	\$117	\$58
Power Block	\$0	\$1,916	\$0	\$0	\$958	\$0	\$0	\$1,916	\$0	\$0	\$479
Ash Handling	\$413	\$0	\$208	\$0	\$208	\$0	\$413	\$0	\$413	\$0	\$165
General	\$122	\$0	\$139	\$0	\$146	\$0	\$156	\$0	\$122	\$0	\$88
Facilities/Infrastructure	\$0	\$122	\$0	\$139	\$0	\$156	\$0	\$170	\$0	\$122	\$71
Sub-Total	\$636	\$2,387	\$446	\$489	\$1,310	\$608	\$669	\$2,436	\$636	\$472	\$968
Total:	\$1,796	\$11,636	\$1,607	\$2,364	\$2,373	\$3,246	\$1,877	\$12,182	\$1,821	\$2,101	\$4,100

FIGURE 19  
300

**General Project Information:**

File Name: CoalPerf031601  
Project Name: Sample Project

Location: USA

Operator: To Be Determined

**Operator's Fees & Services:**

Operator Fee	\$0
Legal Services	\$139,805
Construction Services	\$146,709
Testing Services	<u>\$41,424</u>
Total Fees & Services	\$327,939

**Travel:** \$86,300

**Misc. Employee Expenses** \$286,422

FIGURE- 20

↑  
310

File Name: CoalPerf031601  
Project Name: Sample Project

Location: USA

Operator: To Be Determined

Sample Project

Consumables:

Lubricating Oils:		\$379,977
Hydraulic Oil:		
Solvents/Boiler Wash:		
Cleaning Materials:		
Welding Supplies:		
Nuts/Bolts/Small Mechanical Parts:		
Fuses/Light Bulb/small Elect. Parts:		
Fittings/Small I&E Parts:		
Gas & Oil:		
Total Oils and Lubricants		\$379,977

Chemicals:

Boiler Water:	62.27%	\$285,603
Cooling Water:	38.38%	\$166,889
Demin. Regen.	1.35%	\$6,194
Fuel Oil:		
Sanitary:		
NOx		
Aqueous Ammonia:		
Total Chemicals:		\$458,686

Gases:

Nitrogen:	\$0
Hydrogen:	\$0
Oxygen/Acetylene	\$0
NOx, CO, SO2, O2 Span Gas	\$0
Total Gases:	\$0

Office Supplies & Services:

Postage, Overnight Mail, etc:	\$17,104
Freight:	\$0
Telephone	\$41,038
Utilities	\$9,263
Dues, Subscriptions	\$70,914
Advertising:	\$0
Camera/ Film/Photo Supplies:	\$0
Copier/Paper/Service:	\$0
Office Supplies:	\$40,194
General Supplies:	\$0
Audio Visual Equipment:	\$0
Portable Radios/Service:	\$0
Drinking Water:	\$0
Safety Supplies:	\$0
Safety/Environmental Insp:	\$0
Instrument Service/Repair:	\$0
Vehicles/Service/Fuel:	\$165,284
Insurance Autos/Trucks	\$0
Lift Trucks/Service:	\$0
Small Tools:	\$0
Software for Computers:	\$271
Computer Hardware:	\$0
Building Maintenance:	\$4,594
Janitorial Supplies:	\$0
Misc. Expenses:	\$13,310
Uniforms:	\$0
Total Supplies and Services:	\$361,973

Office Furniture/Rent:

Office Rent:	\$0
Desk/Chairs/etc:	\$0
Lab/Shop/Cntrl. Rm. Equip:	\$0
Computer Lease:	\$0
Total Office Furniture:	\$0

**FIGURE - 21**

Direct Mat'l

320

File Name: CoalPerf031601  
Project Name: Sample Project

Location: USA

Operator: To Be Determined

Rentals/Lease:

Tools:	\$15,304
Equipment:	\$261,694
Office:	\$57,431
Office Equipment	\$1,066,871
Railcar:	\$17,253
Lease Auto/Tucks	\$1,418,553
Total Rentals:	

Planned Spare Parts:

Boiler:	\$1,731,661
Turbine:	\$766,330
APC Equipment:	\$149,151
Feedwater System:	\$62,661
BOP:	\$176,591
Total Spare Parts:	\$2,886,394

FIGURE - 22

↑  
340

File Name: CoalPerf031801  
Project Name: Sample Project

Location: USA

Operator: To Be Determined

Proximate Analysis:

FC	33.71%
VM	30.44%
S	0.85%
M	28.35%
A	5.45%
Total	100.00%

HHV (Btu/lb) 8,500

Information used in conjunction with the coal classification figure:

BTU:	8504.88
DRY:	33.70%

Proxied Coal Classification:

Coal Type: 3  
Sub: Bituminous  
(Calculated) OK

Hardgrove Grind Index:

Ash Mineral Analysis:

Silica - SiO2	31.00
Alumina - Al2O3	14.00
Titanium - TiO2	1.10
Ferric Oxide - Fe2O3	6.50
Lime - CaO	24.80
Magnesia - MgO	6.00
Potassium Oxide - K2O	0.25
Sodium Oxide - Na2O	1.30
Sulfur Trioxide - SO3	12.20
Phosphorus Pentoxide - P2O5	0.70
Undetermined	2.35
Total	100.00

Ash Fusion Temperatures (Deg. F)  
Initial Deformation-Reducing ( Input Data ) 2188  
Initial Deformation-Softening ( Input Data ) 2239

PAIR Formula Relationships:

BASE/ACID RATIO:  
(A range of 4-7  
coals and results in low ash-fusibility temps )

0.7641

IRON/CALCIUM RATIO:  
(0.3-1.3 indicative  
lowers the fusibility temp. of the ash.)

0.28

IRON/DOLOMITE RATIO:  
(Bt. type ash is

0.21

SILICA/ALUMINA RATIO:  
(above 2.8 & 6

2.21

FIGURE - 23

**SECRET**

Molecular Weight of Fuel:

**Natural Gas Heating Value Conversion Analysis:**  
17-Mar-01

Percent by vol.		amu(17)	(88F 30VGC)	(60F 30VGC)
<b>Natural Gas Analysis:</b>				
Oxygen	0.00%	0	0.00	0.00
Argon	0.00%	0	0.00	0.00
Carbon Dioxide	0.00%	0	0.00	0.00
Nitrogen	0.00%	270	0.00	0.00
Hydrogen	0.00%	588	0.00	0.00
Hydrogen Sulfide	0.00%	888	0.00	0.00
CH <sub>4</sub>	0.00%	1584.6	0.00	0.00
C <sub>2</sub> H <sub>6</sub>	0.00%	2382.6	0.00	0.00
Propane	0.00%	2868.7	0.00	0.00
Butane	0.00%	3654	0.00	0.00
Pentane	0.00%	4311.72	0.00	0.00
Hexane	0.00%	LHV =	0.00	0.00

**Notes:**  
(1) Source Mark's standard Handbook for Mechanical Engineers  
Ninth Edition Page 4-29

FIGURE 24



Molecular Weight		
S	1	32.064
O	2	31.692
		64.053
		50.05%

**\$150.00 \$/Ton**

**Southern Fuels**

**@ 1.2 lbs**

80°/million BTU <sup>a</sup>										
Mines	Average BTU/lb Content	Average Percent Sulfur (8 %)	Average Ash Content (%)	In Compliance (Y/N) *	8 % allowed for Compliance	lbs 80°/MM Btu	SO <sub>2</sub> Reduction Efficiency	lbs 80°/MM Btu	Required Offsets Tons Coal Fired	Cost of Offsets \$/Ton of Coal Fired
Bailey	12,950	2.14%	7.50%	N	0.778%	3.3	10.00%	2.97	0.038482	\$3.786
Colonial	12,800	0.93%	8.88%	N	0.789%	1.45	0.00%	1.45	0.018560	\$2.784
Whitetail	12,800	1.05%	6.25%	N	0.769%	2.5	0.00%	2.50	0.032000	\$4.800
Judana	12,900	1.28%	6.75%	N	0.775%	2	0.00%	2.00	0.025800	\$3.970
Sawmill	12,900	1.28%	9.75%	N	0.775%	2	0.00%	2.00	0.025800	\$3.970
Sentinel	12,900	1.28%	9.75%	N	0.775%	2	0.00%	2.00	0.025800	\$3.970
Whitethide	12,800	0.93%	9.25%	N	0.789%	1.45	0.00%	1.45	0.018560	\$2.784

**2.707**

**2.707**

41807.04

Provided Information		Project Info. Check				
		IBUY	Total Fund	BBUY	992 (total)	%B
Unit 1	8,661		766,000	12,929	11,500	0.76%
Unit 2	8,661		766,000	12,929	6,762	0.89%
Unit 3	8,661		766,000	12,981	6,116	0.61%
			2,264,000	38,718	37,230	16,634
			Total Fund	BBUY	992 (total)	%B
Unit 1	8,661		2,272,000	38,658	11,500	0.25%
Unit 2	8,661		2,338,000	38,664	13,510	0.23%
			4,610,000		25,010	12,518

Calculated Information:				Sub-	Bilumious	SO2 (1.28MMBtu)				tons of
Project		HR	% S	Tons Fired	MMBtu	Sulfur (tons)	SO2 (tons)	#SO2/MMMBtu	Allowable Tons	Offsets Required
Unit 1	Unit 1	8,500	0.85%	1,617,002	27,489,039	13,745	27,491	2.00	10,483	10,868
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
Unit 2	Unit 2	8,500	0.85%							
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
Unit 3	Unit 3	8,500	0.85%							
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI
						#N/MI	#N/MI	#N/MI	#N/MI	#N/MI

FIGURE 25

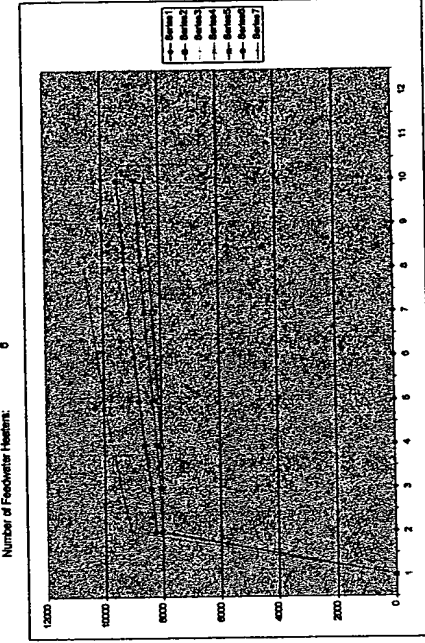




FIGURE 28

This tab is being used to adjust variations in heat rate at partial loads in the performance section of the model

Flow Rates  
Superheated Reheat Gen. kW  
1,025,000 900,000 150,200  
Boiler Feedwater Temperature - F 480  
Number of Feedwater Heaters 6



Exhaust Pressure	% Change	TCDF Length	25	8007	8016	8027	8038	8049	8060	8071	8082	8093	8104	8115	8126	8137	8148	8159	8170	8181	8192	8203	8214	8225	8236	8247	8258	8269	8280	8291	8302	8313	8324	8335	8346	8357	8368	8379	8390	8401	8412	8423	8434	8445	8456	8467	8478	8489	8500	8511	8522	8533	8544	8555	8566	8577	8588	8599	8610	8621	8632	8643	8654	8665	8676	8687	8698	8709	8720	8731	8742	8753	8764	8775	8786	8797	8808	8819	8830	8841	8852	8863	8874	8885	8896	8907	8918	8929	8940	8951	8962	8973	8984	8995	9006	9017	9028	9039	9050	9061	9072	9083	9094	9105	9116	9127	9138	9149	9160	9171	9182	9193	9204	9215	9226	9237	9248	9259	9270	9281	9292	9303	9314	9325	9336	9347	9358	9369	9380	9391	9402	9413	9424	9435	9446	9457	9468	9479	9490	9501	9512	9523	9534	9545	9556	9567	9578	9589	9600	9611	9622	9633	9644	9655	9666	9677	9688	9699	9710	9721	9732	9743	9754	9765	9776	9787	9798	9809	9820	9831	9842	9853	9864	9875	9886	9897	9908	9919	9930	9941	9952	9963	9974	9985	9996	10007	10018	10029	10040	10051	10062	10073	10084	10095	10106	10117	10128	10139	10150	10161	10172	10183	10194	10205	10216	10227	10238	10249	10260	10271	10282	10293	10304	10315	10326	10337	10348	10359	10370	10381	10392	10403	10414	10425	10436	10447	10458	10469	10480	10491	10502	10513	10524	10535	10546	10557	10568	10579	10590	10601	10612	10623	10634	10645	10656	10667	10678	10689	10700	10711	10722	10733	10744	10755	10766	10777	10788	10799	10810	10821	10832	10843	10854	10865	10876	10887	10898	10909	10920	10931	10942	10953	10964	10975	10986	10997	11008	11019	11030	11041	11052	11063	11074	11085	11096	11107	11118	11129	11140	11151	11162	11173	11184	11195	11206	11217	11228	11239	11250	11261	11272	11283	11294	11305	11316	11327	11338	11349	11360	11371	11382	11393	11404	11415	11426	11437	11448	11459	11470	11481	11492	11503	11514	11525	11536	11547	11558	11569	11580	11591	11602	11613	11624	11635	11646	11657	11668	11679	11690	11701	11712	11723	11734	11745	11756	11767	11778	11789	11800	11811	11822	11833	11844	11855	11866	11877	11888	11899	11910	11921	11932	11943	11954	11965	11976	11987	11998	12009	12020	12031	12042	12053	12064	12075	12086	12097	12108	12119	12130	12141	12152	12163	12174	12185	12196	12207	12218	12229	12240	12251	12262	12273	12284	12295	12306	12317	12328	12339	12350	12361	12372	12383	12394	12405	12416	12427	12438	12449	12460	12471	12482	12493	12504	12515	12526	12537	12548	12559	12570	12581	12592	12603	12614	12625	12636	12647	12658	12669	12680	12691	12702	12713	12724	12735	12746	12757	12768	12779	12790	12801	12812	12823	12834	12845	12856	12867	12878	12889	12900	12911	12922	12933	12944	12955	12966	12977	12988	12999	13010	13021	13032	13043	13054	13065	13076	13087	13098	13109	13120	13131	13142	13153	13164	13175	13186	13197	13208	13219	13230	13241	13252	13263	13274	13285	13296	13307	13318	13329	13340	13351	13362	13373	13384	13395	13406	13417	13428	13439	13450	13461	13472	13483	13494	13505	13516	13527	13538	13549	13560	13571	13582	13593	13604	13615	13626	13637	13648	13659	13670	13681	13692	13703	13714	13725	13736	13747	13758	13769	13780	13791	13802	13813	13824	13835	13846	13857	13868	13879	13890	13901	13912	13923	13934	13945	13956	13967	13978	13989	14000	14011	14022	14033	14044	14055	14066	14077	14088	14099	14110	14121	14132	14143	14154	14165	14176	14187	14198	14209	14220	14231	14242	14253	14264	14275	14286	14297	14308	14319	14330	14341	14352	14363	14374	14385	14396	14407	14418	14429	14440	14451	14462	14473	14484	14495	14506	14517	14528	14539	14550	14561	14572	14583	14594	14605	14616	14627	14638	14649	14660	14671	14682	14693	14704	14715	14726	14737	14748	14759	14770	14781	14792	14803	14814	14825	14836	14847	14858	14869	14880	14891	14902	14913	14924	14935	14946	14957	14968	14979	14990	15001	15012	15023	15034	15045	15056	15067	15078	15089	15100	15111	15122	15133	15144	15155	15166	15177	15188	15199	15210	15221	15232	15243	15254	15265	15276	15287	15298	15309	15320	15331	15342	15353	15364	15375	15386	15397	15408	15419	15430	15441	15452	15463	15474	15485	15496	15507	15518	15529	15540	15551	15562	15573	15584	15595	15606	15617	15628	15639	15650	15661	15672	15683	15694	15705	15716	15727	15738	15749	15760	15771	15782	15793	15804	15815	15826	15837	15848	15859	15870	15881	15892	15903	15914	15925	15936	15947	15958	15969	15980	15991	16002	16013	16024	16035	16046	16057	16068	16079	16090	16101	16112	16123	16134	16145	16156	16167	16178	16189	16200	16211	16222	16233	16244	16255	16266	16277	16288	16299	16310	16321	16332	16343	16354	16365	16376	16387	16398	16409	16420	16431	16442	16453	16464	16475	16486	16497	16508	16519	16530	16541	16552	16563	16574	16585	16596	16607	16618	16629	16640	16651	16662	16673	16684	16695	16706	16717	16728	16739	16750	16761	16772	16783	16794	16805	16816	16827	16838	16849	16860	16871	16882	16893	16904	16915	16926	16937	16948	16959	16970	16981	16992	17003	17014	17025	17036	17047	17058	17069	17080	17091	17102	17113	17124	17135	17146	17157	17168	17179	17190	17201	17212	17223	17234	17245	17256	17267	17278	17289	17300	17311	17322	17333	17344	17355	17366	17377	17388	17399	17410	17421	17432	17443	17454	17465	17476	17487	17498	17509	17520	17531	17542	17553	17564	17575	17586	17597	17608	17619	17630	17641	17652	17663	17674	17685	17696	17707	17718	17729	17740	17751	17762	17773	17784	17795	17806	17817	17828	17839	17850	17861	17872	17883	17894	17905	17916	17927	17938	17949	17960	17971	17982	17993	18004	18015	18026	18037	18048	18059	18070	18081	18092	18103	18114	18125	18136	18147	18158	18169	18180	18191	18202	18213	18224	18235	18246	18257	18268	18279	18290	18301	18312	18323	18334	18345	18356	18367	18378	18389	18400	18411	18422	18433	18444	18455	18466	18477	18488	18499	18510	18521	18532	18543	18554	18565	18576	18587	18598	18609	18620	18631	18642	18653	18664	18675	18686	18697	18708	18719	18730	18741	18752	18763	18774	18785	18796	18807	18818	18829	18840	18851	18862	18873	18884	18895	18906	18917	18928	18939	18950	18961	18972	18983	18994	19005	19016	19027	19038	19049	19060	19071	19082	19093	19104	19115	19126	19137	19148	19159	19170	19181	19192	19203	19214	19225	19236	19247	19258	19269	19280	19291	19302	19313	19324	19335	19346	19357	19368	19379	19390	19401	19412	19423	19434	19445	19456	19467	19478	19489	19500	19511	19522	19533	19544	19555	19566	19577	19588	19599	19610	19621	19632	19643	19654	19665	19676	19687	19698	19709	19720	19731	19742	19753	19764	19775	19786	19797	19808	19819	19830	19841	19852	19863	19874	19885	19896	19907	19918	19929	19940	19951	19962	19973	19984	19995	20006	20017	20028	20039	20050	20061	20072	20083	20094	20105	20116	20127	20138	20149	20160	20171	20182	20193	20204	20215	20226	20237	20248	20259	20270	20281	20292	20303	20314	20325	20336	20347	20358	20369	20380	20391	20402	20413	20424	20435	20446	20457	20468	20479	20490	20501	20512	20523	20534	20545	20556	20567	20578	20589	20600	20611	20622	20633	20644	20655	20666	20677	20688	20699	20710	20721	20732	20743	20754	20765	20776	20787	20798	20809	20820	20831	20842	20853	20864	20875	20886	20897	20908	20919	20930	20941	20952	20963	20974	20985	20996	21007	21018	21029	21040	21051	21062	21073	21084	21095	21106	21117	21128	21139	21150	21161	21172	21183	21194	21205	21216	21227	21238	21249	21260	21271	21282	21293	21304	21315	21326	21337	21348	21359	21370	21381	21392	21403	21414	21425	21436	21447	21458	21469	21480	21491	21502	21513	21524	21535	21546	21557	21568	21579	21590	21601	21612	21623	21634	21645	
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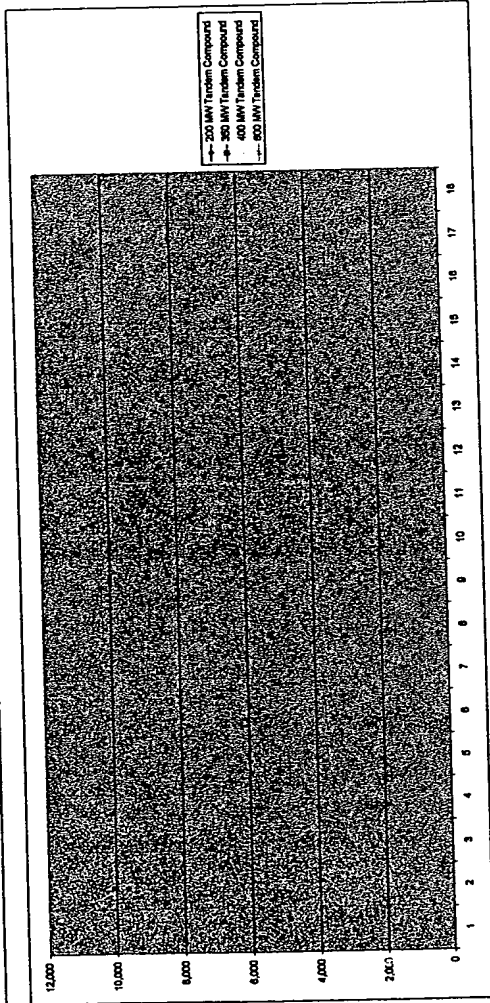
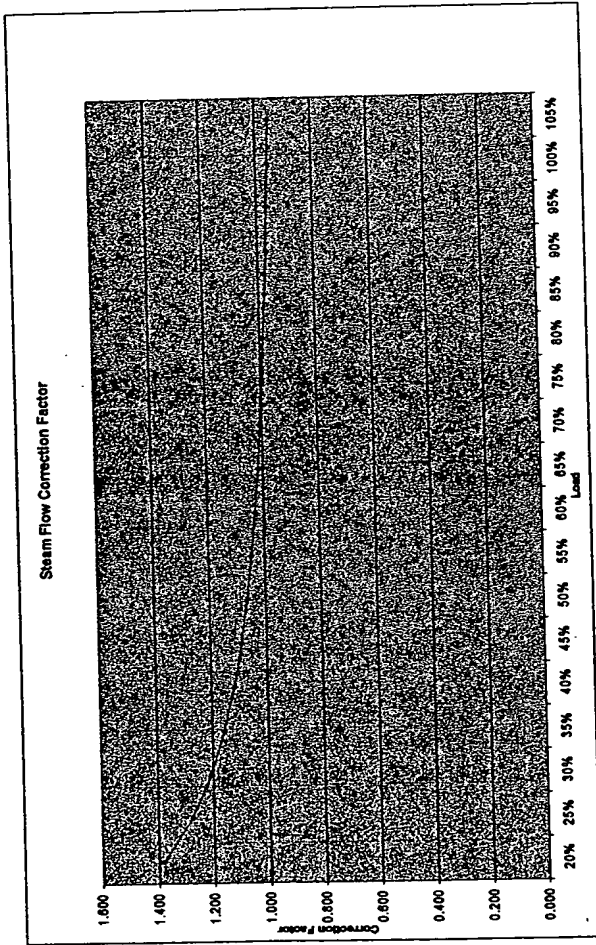


FIGURE 29

# FIGURE-30

File Name: CoalPerf031601  
Project Name: Sample Project

Location: USA

Operator: To Be Determined

IE Dispatch Information: For Reference Only												
Average Annual Capacity: 373												
Capacity Factor	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	83.70%	85.00%	71.30%	69.60%	67.50%	68.10%	67.10%	68.00%	67.90%	67.80%	68.20%	67.90%
Availability	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	99.53%	97.10%	97.75%	98.03%	97.35%	97.75%	97.75%	97.34%	97.9%	97.75%	97.75%	97.75%
Average Load	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	93.00%	94.44%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%
Hours in Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	8,780	8,780	8,780	8,780	8,780	8,780	8,780	8,780	8,780	8,780	8,780	8,780
Hours Dispatched	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	7,884	7,884	7,906	7,884	7,884	7,884	7,884	7,884	7,884	7,884	7,884	7,884
Annual Output	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	2,731,405	2,773,829	2,333,127	2,271,278	2,202,748	2,222,308	2,195,692	2,219,083	2,215,800	2,212,536	2,231,687	2,215,800
Calculated Annual Output	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	2,731,405	2,773,829	2,333,127	2,271,278	2,202,748	2,222,308	2,195,692	2,219,083	2,215,800	2,212,536	2,231,687	2,215,800

Major Outages												
Hours Available for Dispatched												
Month	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
January	744	744	744	744	744	744	744	744	744	744	744	744
February	672	672	672	672	672	672	672	672	672	672	672	672
March	240	240	240	240	240	240	240	240	240	240	240	240
April	720	720	720	720	720	720	720	720	720	720	720	720
May	744	744	744	744	744	744	744	744	744	744	744	744
June	720	720	720	720	720	720	720	720	720	720	720	720
July	744	744	744	744	744	744	744	744	744	744	744	744
August	744	744	744	744	744	744	744	744	744	744	744	744
September	720	720	720	720	720	720	720	720	720	720	720	720
October	744	744	744	744	744	744	744	744	744	744	744	744
November	720	720	720	720	720	720	720	720	720	720	720	720
December	744	744	744	744	744	744	744	744	744	744	744	744
Total	8256	7248	8256	8256	8256	8256	8256	8256	8256	8256	8256	8256
Hours Dispatched												
Month	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
January	744	744	744	744	744	744	744	744	744	744	744	744
February	672	672	672	672	672	672	672	672	672	672	672	672
March	240	240	240	240	240	240	240	240	240	240	240	240
April	720	720	720	720	720	720	720	720	720	720	720	720
May	744	744	744	744	744	744	744	744	744	744	744	744
June	720	720	720	720	720	720	720	720	720	720	720	720
July	744	744	744	744	744	744	744	744	744	744	744	744
August	744	744	744	744	744	744	744	744	744	744	744	744
September	720	720	720	720	720	720	720	720	720	720	720	720
October	744	744	744	744	744	744	744	744	744	744	744	744
November	720	720	720	720	720	720	720	720	720	720	720	720
December	744	744	744	744	744	744	744	744	744	744	744	744
Total	8256	7248	8256	8256	8256	8256	8256	8256	8256	8256	8256	8256
Total Hours Dispatched												
Month	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
January	744	744	744	744	744	744	744	744	744	744	744	744
February	672	672	672	672	672	672	672	672	672	672	672	672
March	240	240	240	240	240	240	240	240	240	240	240	240
April	720	720	720	720	720	720	720	720	720	720	720	720
May	744	744	744	744	744	744	744	744	744	744	744	744
June	720	720	720	720	720	720	720	720	720	720	720	720
July	744	744	744	744	744	744	744	744	744	744	744	744
August	744	744	744	744	744	744	744	744	744	744	744	744
September	720	720	720	720	720	720	720	720	720	720	720	720
October	744	744	744	744	744	744	744	744	744	744	744	744
November	720	720	720	720	720	720	720	720	720	720	720	720
December	744	744	744	744	744	744	744	744	744	744	744	744
Total	8256	7248	8256	8256	8256	8256	8256	8256	8256	8256	8256	8256
Percentage of Available Hours												
Month	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
January	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
February	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
March	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
April	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
May	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
June	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
July	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
August	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
September	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
October	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
November	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
December	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
Total	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%	94.25%
Average Annual Load												
Month	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
January	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
February	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
March	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
April	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
May	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
June	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
July	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
August	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
September	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
October	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
November	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
December	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
Total	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%

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[illegible]

Assumed Tax (per ton of Carbon ): \$40

Sub-  
Bituminous

Facility Net Heat Rate (HHV):	BTU/KWH	9,956
HHV of Coal:	BTU/#	8,500
Percent Carbon in Coal (WT)		48.30%
Unit Capacity:	MW	373
Carbon Loss:		0.25%
Molecular Weight of Carbon		12.01
Molecular Weight of O2		32.00
Price per MMBtu from Coal		1.11
Price per Ton of Coal (delivered)	per Ton	\$30.00
Net KWH Produced:		2,761,097,147
Coal Fired	Tons	1,617,002
Carbon in Flue Gas	Tons	781,012
CO2	Tons	2,861,804
Fuel Cost:	Total	\$48,631,344
	\$/kwh	\$0.0176
	Carbon Tax:	\$31,240,484
	per KWH	\$0.0113
	per MMBtu	\$1.14

Tons CO2/kWh

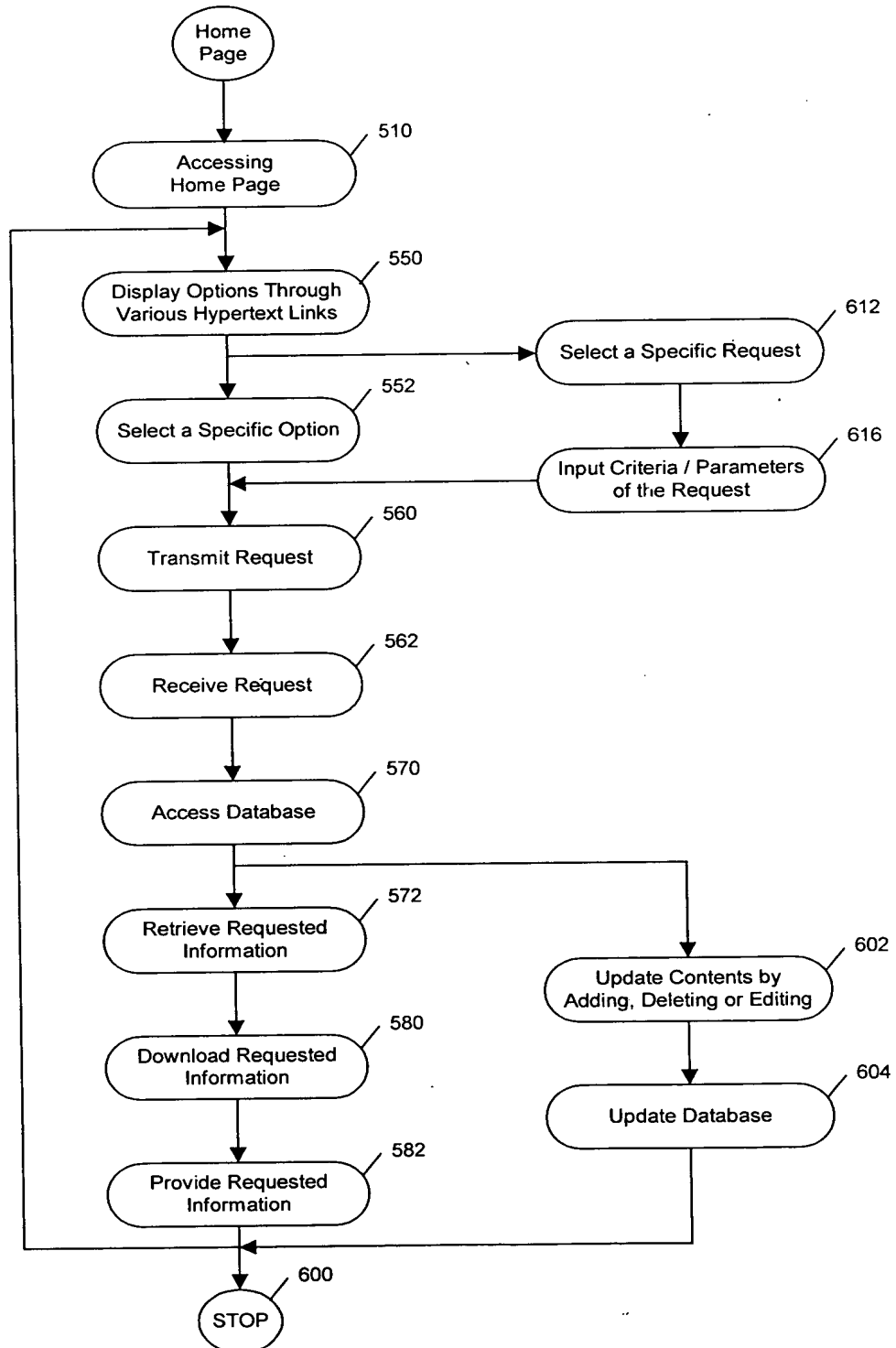
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FIGURE-32



FIGURE 33

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